

Industrial colonies in Catalonia

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Received 29 March 2010 · Accepted 30 June 2010

ABSTRACT

Industrial colonies, meaning industrial population nuclei located in rural areas, are one of the most characteristic phenomena of the industrialisation process in Catalonia, both because of the industrial, business and social model they developed and because they became one of the most singular features of the landscapes in the Ter and Llobregat river basins. Thanks to these colonies, the counties where they were located ceased being rural and instead became industrialised and urbanised.

KEYWORDS: industrial colony, industrialisation, paternalism, unionist movement, river valleys

MANY COLONIES, ALL OF THEM DIFFERENT

Industrial colonies are characterised by the construction of a workers' village near the factory, which is powered by the hydraulic energy of a river. The earliest industrial colonies appeared in Great Britain back in the 18th century. The most famous one is New Lanark (1786), Scotland, located along the banks of the River Clyde. Starting in 1800 it was directed by Robert Owen, the future social reformer and proponent of the cooperative movement. Another colony that has been extensively studied is the Saltair workers' village (1853) in Yorkshire. There are examples in Italy as well, such as Crespi d'Adda (1878) in the province of Bergamo, not too far from the Alps. However, nowhere was the web of industrial colonies as dense as it was in Catalonia; the heyday of the colonies lasted 150 years, although the factories that led the colonies to be built have now disappeared.

Industrial colonies, meaning industrial population nuclei located in rural areas, are one of the most characteristic phenomena of the industrialisation process in Catalonia, both because of the industrial, business and social model they developed and because they became one of the most singular features of the landscapes in the Ter and Llobregat river basins. Thanks to these colonies, the counties where they were located ceased being rural and instead became industrialised and urbanised.

The textile colonies are the most important ones in terms of both number and the degree to which they are known and have been studied; they are the ones that de-

fine the model. The Llobregat River valley is the home to the most important textile colonies from the standpoint of architecture and urban design, as well as the most complex ones in terms of their production system: the majority of the factories in the colonies spun, wove and performed the processes of finishing, sizing and dyeing. Just like in the ones in the Ter River valley and the basins of secondary rivers – the Cardener, Calders, Anoia, Freser and even the Pinyana canal in Lleida – almost 100 of which have been documented, the colonies were built in rural areas far from the small urban nuclei that were unable to provide supplies and services. For this reason, the owners organised everything needed to live and work at that time to render them as autonomous as possible. The autonomous nature of the services that the colonies offered their workers-inhabitants has often been spotlighted, but this self-sufficiency was a prime goal in order for the factory to work. Thanks to teams of bricklayers, woodworkers and locksmiths, the desired self-sufficiency became a reality. The locksmith's workshop and storehouse became the key that led the factory to operate and ensured its constant modernisation and technical adaptation.

Even though the colonies were particularly dense in the northern part of the river valleys, the phenomenon of industrial colonies spanned from north to south, following the course of the river. In the case of the Llobregat, for example, we can find colonies just a few kilometres from the source of the river, such as the industrial complex in Clot del Moro, which had not only a cement factory and its auxiliary facilities but also a train station, the managers' house with its sports grounds and the house of the owner, Count Güell. The workers lived in La Pobla de Lillet, just a few kilometres from the complex. Further downstream on the Llobregat, the constant string of colo-

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nies down to the Baix Llobregat, with Colònia Sedó and Colònia Güell as the most important examples, reached the very river delta, where two large agricultural colonies, Casanova and Ricarda in El Prat de Llobregat, drew their water supply.

It is worth stressing the fact that industrial colonisation is very rich and plural and that in addition to the textile colonies other colonies were founded that housed people working in other industrial activities, since at this stage in the second wave of industrialisation, the workforce's availability and specialisation was a prime requirement to make industrial investment profitable. The mining colonies of Sant Corneli, Sant Josep and La Consolació (Cercs)

and the colony in La Vall de Peguera (Fígols), were built at the base of the coal mines in Fígols, as were others along the Ter River at the foot of the Ogassa (Ripollès) mines. There were also mining colonies in the potassium basin of Bages, in the towns of Cardona, Súria, Balsareny and Sallent. At times, cement manufacturing also required small colonies to be built, such as in Clot del Moro (Castellar de n'Hug, Berguedà) and El Collet (Guardiola de Berguedà). The one in Graugès (Avià, Berguedà) and the now-vanished ones in Prat del Llobregat (Casanova and Ricarda) are examples of the system applied to modern farms.

We should especially stress the case of Colònia Güell both because of its architectural and urban design value,

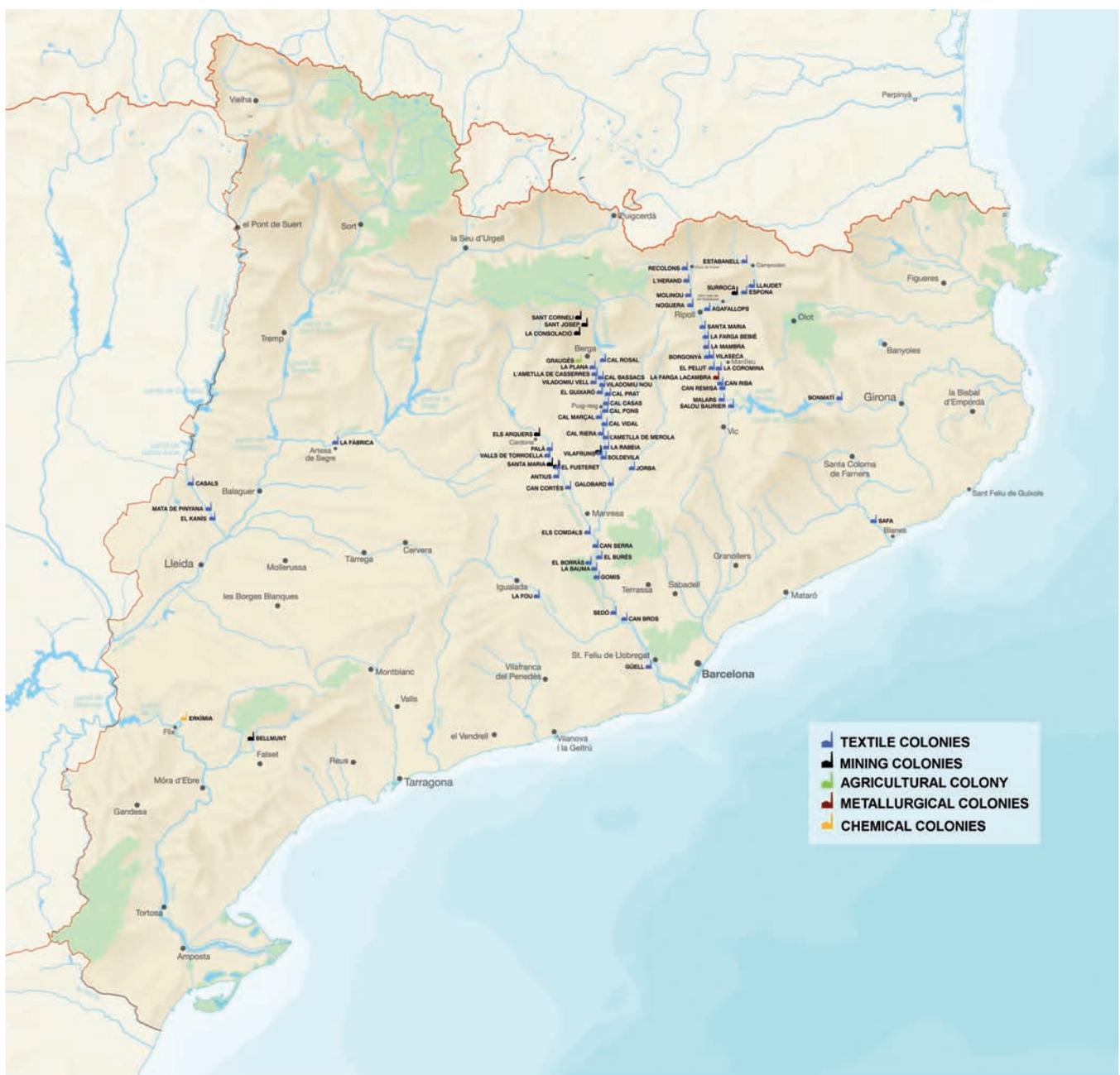


Figure 1. The map of industrial colonies in Catalonia mainly shows the concentration of textile colonies on the riverbanks of the Llobregat and Ter. It also shows that it is a rich and complex urbanisation phenomenon of rural Catalonia in the 19th and early 20th centuries which includes interesting examples of mining, metallurgical, chemical and farming colonies.

which has led its church, designed by the great architect Antoni Gaudí, to be declared a UNESCO Human Heritage Site, and because of the fact that, as a textile colony, it is the only example from this sector that did not use river water as a source of energy. There are many different colonies, all of them different, because just like rural settlements, towns and cities, no two are the same, even though they do share the characteristics of their production model and socioeconomic organisation.¹

MUCH MORE THAN A FAVOURABLE LEGISLATIVE FRAMEWORK

The first law on colonies and the ones that followed it were based on a powerful tradition of workers' colonies. In Spain, this tradition dated back not only to the 18th century, with the major impetus for colonisation provided by Charles III, but also to centuries of experiences in the Americas with the conquest and exploitation of that immense colonial empire. Given this history, it is logical that agricultural colonisation would remain a pending issue in 1833. The long and fraught pathway towards creating a liberal state was embarked on between 1833 and 1868. In this process, the monarchy was slowly and haltingly transformed under the guidance of the moderate liberals who made up the bulk of the landowning nobility and the bourgeoisie.

The liberals, united against absolutism and the milieu of Isabel II, were the driving force behind the creation of the new state. They were divided into two major camps, the moderates and the progressives. The industrial bourgeoisie was adopting increasingly conservative attitudes, and the Crown never found the time to ask the progressives to form a government, so they only managed to govern after *pronunciamientos*. It was precisely during the short periods of progressive government that the agricultural reform got underway with the land disentailment laws (Mendizábal, 1836, and Madoz, 1855) and a series of extremely important complementary laws, one of which was the 1855 Law on Colonies, the first in a long series which was followed by the 1866 law and another in 1868.² The 1855 law was related to the laws on disentailment, the railways and limited liability credit companies, also from 1855-1856, which were controversial and harshly criticised both from the theoretical standpoint and because of the consequences of their enforcement.

The ultimate goal was simply to transform and modernise the Spanish countryside, which was tantamount to the country itself because in the mid-19th century Spain was a wholly rural country. Just a quick look at the figures confirms this: it had a little over 15 million inhabitants, only 44% of whom were part of the active population. Of this percentage, the agricultural sector accounted for 63.5% of workers, followed by 25.5% in the services sector (servants, retail, clergy, etc.) and 12% in the secondary sector (crafts and industry). Spaniards' life expectancy in the mid-19th

century was 35 years, and the mortality rate was 29% while the birth rate was 34%. These figures paint a grim picture. Furthermore, the political and economic reforms were being implemented too slowly, as only 477 kilometres of the state railway system had been built by 1855.

The 1855 Law on Colonies was followed by its 1866 counterpart, which was aimed at fostering what was called the "caserío rural" (rural farmhouse). It also dovetailed with another important package of laws: the Law on Water. After confirming its overall ineffectiveness, the original law was replaced by the one dated the 3rd of June 1868, which laid the groundwork for the true development of the industrial colonies. The first article stated that a non-agricultural industry located in a rural zone would be exempt from industrial taxes as long as it was part of the rural town.

THE EFFECT OF THE LAW ON COLONIES IN CATALONIA

However, obviously one thing is a law and another very different thing is how it is enforced. This enforcement requires regulations and the corresponding ministerial orders to be enacted. In the case of Spain at the time, all of this took place within a state under construction immersed in constant political battles, economic crises in the countryside and the nascent industrial sector, social upheaval and the bloody civil wars – the Carlist Wars – as well as conflicts in Morocco and Cuba. Several royal orders outlined the privileges of the law in much further detail with the goal of stopping the onslaught of requests. Nevertheless, it was interpreted unevenly by the civil governors, and in the case of Catalonia only 35 companies benefited from it, a small group of agricultural, textile, metallurgical and mining concerns. This is a very low percentage if we bear in mind that more than 100 colonies were built in Catalonia. Of the 142 industrial colonies scattered around Spain that benefited from the law, the largest number – around 60 – operated in the agro-food industry (sugar, spirits and flour factories, oil mills, etc.), according to the archives containing the requests and rulings. They were followed in number by 26 textile companies, 15 of which were located in the province of Barcelona, two in Girona and one in Lleida.

The Catalan colonies that benefited from the status of colony were: Colònia Sedó in Esparreguera (1879), Colònia Vila-seca in Torelló (1880), L'Ametlla de Merola (Puig-reig 1880), Cal Pons and Cal Prat in Puig-reig (1882), Viladomiu Nou and Viladomiu Vell in Gironella (1892), La Mambla in Orís (1882), Salou and Còdol Dret (Les Masies de Roda, 1882), Can Serra, El Burés and El Borràs in Castellbell i El Vilar (1883), Matabosc in Camprodon (1883), Colònia Güell in Santa Coloma de Cervelló (1883) and Colònia Rosal in Berga (1885). In 1883, the mining colony in Orgassa (Surroca, Ripollès), owned by the Compañía Ferroviaria Ferrocarril y Minas de San Juan de



Figure 2. Aerial photo of Viladomiu Nou (Source: Arxiu Consorci Parc Fluvial de les Colònies del Llobregat).

las Abadesas, also secured this status, as did twelve other colonies we have been unable to identify: six in the province of Lleida (four agriculture, one textile and one paper) and six in Tarragona (one salt, four agro-food and one paper).

The industrial colonies were built wherever the owner could find raw materials that were profitable to exploit, usually in the inland rural areas of the country. Wherever there were minerals (coal, galena, potassium, etc.), mining and metallurgical companies were set up; the cement and chemical companies were set up wherever there was stone; agricultural companies transformed huge tracts of irrigated land; and textile industrialists took advantage of water as a free source of energy for their factories. It goes without saying that since they were set up in rural zones and the owners were forced to build homes and services to ensure a stable workforce, they would try to squeeze the most from a law on colonies that would not only save them from having to pay the taxes charged to industries, lands, gardens and shops for a period of 15 to 25 years plus possible extensions, but also give them other privileges: representative public posts, free weapons permits, permits to exploit stone quarries and build lime ovens and kilns for tiles and bricks, and even the possibility of exempting the colony workers from military service. Even though article 19 of the law required them to defray the

costs of basic education – teachers and schools, doctors and religious services – the owners who built more than 100 homes were never included in any budgetary item of the different governments. The law stemmed from the concern with agrarianism, which trusted in the goodness of indirect intervention methods in the Spanish countryside to drive its modernisation; therefore, it is a law of privileges. However, between 1885 and 1892, the trend shifted just as the conflicts between the colonies and the municipalities spread. The municipalities did not oppose the new urban and industrial occupation, but they did complain about the dire socioeconomic imbalances that the colonies with tax-exempt status caused the towns, the immense independence enjoyed by the owners, and especially the damages the colonies inflicted on the municipal treasuries since they did not pay taxes.

This municipal pressure, which we should not overstate since it came from a handful of relatively small towns in inland Catalonia – Gironella, Esparreguera, Puig-reig, Les Masies de Voltregà, etc. – was coupled with the more ponderous, powerful pressure from the Ministry of the Treasury.³ Finally, article 19 of the Law on Budgets dated the 30th of June 1892 stipulated the abeyance of new concession applications as well as a revision of the concessions that had been granted until then in view of the widespread suspicion that many of the thousands of owners

who benefited from the Law on Agricultural and Industrial Colonies had not complied with the spirit of the law.

WATER, COAL AND ELECTRICITY

The industrialists set up the textile colonies on the banks of the Llobregat and Ter rivers and their tributaries to make use of water as a free energy source, just as their ancestors had done in the pre-industrial age. The technical advances enabled the old paddle waterwheel to be replaced by modern turbines, the wooden transmission shafts by thick, strong upright shafts, calibrated iron structures that were strung through the heart of the factory and that conveyed the force of the machines through a complex system of pulleys, belts and axels. Starting in the early 20th century, mechanical energy was replaced by electricity.

As the liberal state was being constructed, the procedure to process the concessions for water used for industrial purposes was regulated by the 1866 Law on Waters, which was revised in 1879. It not only allowed water to be used as a free energy source, it also exempted the business owners from paying industrial taxes for a ten-year period. It benefited all business owners, regardless of their activity, as it deemed that the use of water saved imports of English coal. For this reason, the waters of the Llobregat and Ter interested everyone.

In 1904, the first cement factory owned by the company Asland was opened in Clot del Moro (Castellar de n'Hug). Coal from Alt Berguedà, and especially river water, were used to power the factory. In 1905, José Enrique de Olano y Loyzaga, the owner of many of the coal mines in Alt Berguedà, bought the water concession for Collet (Guardiola de Berguedà) which flowed at a rate of 3,000 litres per second. From the power plant, three high-tension lines carried electricity to the mine entrances, and mechanical ventilation was thus brought inside the galleries, ushering in the process of mine modernisation and mechanisation.

This Mediterranean river – an unruly, quick-flowing, all too often dry and repeatedly torrential river – which crosses our country from north to south and divides it in half, is the only river in Catalonia that leads directly from the mountains to the sea, from the vast, empty spaces to the conurbation of Barcelona. Upriver, in its middle and upper course, the Romans' Rubricatus – which got its name from the reddish tones of the land where it starts and because whenever it rises it flows turbid, dark, muddy and slippery, that is, *lubricatus* – is a murky river, as it runs through mountains full of forests that shade it. What is more, it is the hardest-working river, that is, the most heavily used and exploited river in the world; the great geographer Pierre Deffontaines summarised it with a masterful phrase that has been oft repeated: “Perhaps no river



Figure 3. General view of Colònia Palà Nou on the Cardener River (Photo: M. Escobet, Arxiu Transversalpc).

in the world has been used quite as exhaustively as the indigent Llobregat". Less abundant than the Ter and naturally than the Segre, the "indigent" Llobregat has been and still is the backbone of Catalonia, not only because its waters have been used as an energy source since time immemorial, but also because its basin, from Castellar de n'Hug where it starts to the delta where it dies, is the most densely populated, urbanised and well-connected territory in Catalonia.

It is ultimately a domesticated river, channelled and deviated from its natural course by dams and factory canals and by feats of engineering that have been built over the years to harness its waters more effectively. Between 1885 and 1900, the 21-kilometre Canal Industrial of Berga was built on the upper Llobregat from Guardiola de Berguedà to Colònia Rosal. Near the river's outlet into the sea, the Canal de la Dreta del Llobregat was built between 1855 and 1885, and the Canal de la Infanta was built between 1817 and 1819. They were all dug to water crops and power mills, and they were used heavily by industry throughout the entire 20th century.

The water became a source of wealth and business for the rural landowners who owned land on the banks of the working rivers. The Cardener River is an example, the home to peasants and rural landowners who did not want to give up the possibility, often frustrated, of becoming industrialists. Some were large landholders, some even had noble titles, and they invested their capital and lands into the process of transforming the stretch from Súria to Callús. In 1870, the Marquis of Gelida built a large factory, initially used to manufacture paper using the wood from the forests on the estate but ultimately specialising in cotton thread. This factory, La Gelidense, ended up being transferred to Bonaventura Jover i Mata, a Barcelona-based industrialist. Downriver in Callús, somewhat undeveloped factories and colonies were the initiative of agricultural landowners; they included Colònia Antius, Colònia d'El Guix and Colònia El Cortès. The Marquis of Palmerola and Baron of Callús, Josep Maria Despujol i Ricart, stands out among these landowners. He was the owner of Mas Ribera estate and founder of the small colony of Cal Cavaller. With the exception of large colonies like El Palà Vell and El Palà Nou or Colònia Valls, the Cardener was a river with small spinning factories whose owners ended up leasing them, a system we are well familiar with today which gained ground with the expansion of the new industrial estates.

Between 1874 and 1881, there was a series of lawsuits over control of the water in the stretch from Cal Rosal to L'Ametlla, and especially between Gironella and Puig-reig. At the end of the same century, these disputes were echoed downriver between the Vidal family and the owners of Casa Gran de Cal Riera. During the period 1879-1905, the Junta de la Séquia de Manresa (Irrigation Board of Manresa) repeatedly complained that the manufacturers on the upper Llobregat stored water in the summer and cut off the flow of the irrigation channel which had

been bringing water from the Llobregat to the capital of Bages since the 19th century.

A lot was asked of the river, too much, and the Llobregat seemed to be inexhaustible. Despite the problems and the administration's sluggishness in granting river concessions, the industrialists kept submitting requests. Thus a true struggle over water got underway, a "water fever" that came in the wake of the "gold fever", a term used for the euphoric period in the early 1880s which was exaggeratedly compared to the 1848 gold rush in California. However, the reality was and is otherwise; we have to bear in mind that this is the "indigent" Llobregat.

In 1879, the Junta de la Séquia de Manresa started a lengthy period of grievances submitted to the Department of Promotion because the textile manufacturers on the upper Llobregat were storing water in "reservoirs, stopping the flow in times of drought and using this water according to each factory's needs, which triggers irregularity in the arrival of water to the Manresa irrigation ditch". The grievances were repeated in 1896, 1898 and 1905. The Junta de la Séquia was right to be concerned: the concessions were too important (flows of 3,000 to 5,000 litres per second), plus the administration was being showered with requests for reforms in the dams and canals of the factories that had been operating for years, as well as from the new facilities. The goal was to get more water, or at least to ensure its use even though the Llobregat's shortages were already clear.

The water of the Llobregat had been used particularly heavily in the delta region. Since this area began to be settled, shallow wells had been drilled and water stored in cisterns. The severe drought in 1892 spurred Jaume Casanovas i Parellada, owner of the Casanova agricultural colony, to find a permanent solution. He hired the master well-digger from Cornellà known as Met de Cornellà to drill a deep well "until you find either water or fire". After a few weeks of work, artesian wells were discovered that allowed El Prat to have drinking water for household use and to develop irrigation-based agriculture in the delta.

The use of the artesian wells on the Llobregat went much further; we only have to recall that the Grup Agbar, originally the Compagnie des Eaux de Barcelone – founded in Liege in 1876 to supply water to the towns near Barcelona through the Dosrius aqueduct – and the limited corporation Empresa Concesionaria de Aguas Subterráneas del Río Llobregat, from 1871, is today at the helm of a huge holding made up of more than 150 companies that operate in all fields related to the comprehensive water cycle. In 1903, the first industrial well was built for the Godó-Tàpies bag factory, which would be followed by the wells for Tallers Roca in the town of Gavà, which built radiators and heating boilers, the well for the papermaking company La Papelera Española SA in El Prat de Llobregat, and the well for the factory of the company Española de Industrias Químicas SA, the precursor to La Seda de Barcelona SA.

Today, when the river factory and textile colony model no longer has a future, the river continues to be a prized source of energy for a country that is poor in energy resources. In fact, since the late 19th century, electrical generators were attached to the turbines of the factories and the electrical energy produced was used internally by the factory and the colonies, and was even distributed in a limited outlying area. The possibilities that the Llobregat afforded allowed some textile industrialists with colonies, such as the Gomis family from Manresa, to develop a network to transport electricity in 1909. The success of this enterprise and of the commercialisation of electrical fluid later enabled the production complex founded at Colònia Gomis, at the foot of Montserrat, to become a major hydroelectric company, Fuerzas Hidroeléctricas del Segre.⁴

The water from the Llobregat was not enough to guarantee the operation of the factories. So what other opportunities were there in addition to water and the scanty tax incentives? In a country of scarcity like ours, poor in energy resources, poor in raw materials and poor in consumer markets, the manufacturers, people itching to do business, studied all the opportunities. And they had no doubt about it: if they chose the colony model it was because the operation was profitable, almost always in the short term. We are sure that the sum of this scarcity coupled with the not at all anodyne fact that the majority of manufacturers hailed from that stretch of the river and were familiar with the land – that is, with the people and their idiosyncrasies, the river and its flows, the distances, the lands, the neighbours... which is not negligible – led them to choose that model.

Building a river factory – dam and canals included – and launching it – engines, machines, transport systems, raw materials, etc. – required a huge investment, even more so when an entire colony had to be built. The colony industrialists always tried to palliate the extraordinary cost involved in building a workers' colony with all its services, even on extremely low terms and salaries.

We cannot lose sight of the fact that the most important coal mines in the country lie above the Ter and Llobregat river basins: the mine in Sant Joan de les Abadesses-Ogassa and the one in Berga (Fígols-Cercs). They soon provided coal to fuel the factories during the long, continuous bouts of low water levels once they were connected by their respective railway lines, much later than the railway developers and industrialists themselves would have hoped.

On the Llobregat, the railway line spearheaded by the colony industrialists (Pons, Rosal, Monegal, Soldevila, Regordosa, Claret, Pla...) reached Puig-reig in 1885, Cal Rosal in 1887 and the foot of the Fígols mines in 1903, thus solving the problem of transporting raw materials – cotton and coal – and manufactured products – textiles. However, when the railway reached Alt Berguedà, it linked up with the coal mines and therefore enabled coal to be purchased at much more competitive prices. This

meant the train was good business, as it became the cotton train, coal train, cement train and wood train which connected Manresa with Barcelona, wending its way along the Llobregat river valley.

In 1878, the local press in Berga celebrated the fact that the drought raised coal consumption from the mines in Alt Berguedà, even though it bemoaned the fact that the prices were too high, since there was no train yet. And, indeed, the river water was not enough. In 1904, the factory in Colònia Pons exchanged its old 150 CV steam machine for a 400-CV machine manufactured by La Maquinista Terrestre y Marítima, which reinforced the two 160-CV Francis turbines. In 1911, seven years after the Manresa-Berga train first reached the base of the mines, all the Catalan cotton manufacturers, including the ones in the colonies, bought coal from José Enrique de Olano y Loizaga, the Count of Fígols and main shareholder in the mining company Carbones de Berga SA.

The colonies on the Llobregat bought coal when there was not enough water, a common situation. In order to make the most of the free energy provided by the river, once precarious voltaic arc lighting systems had been installed the colony factories could operate 24 hours a day. The steam machines provided the regular energy flow that the machinery needed and the Llobregat could not offer. The waters of the Llobregat were not regulated until 1976, when the Baells reservoir was opened.

Everything points to the fact that exclusive water use was only sustainable in the early years, between 1858 and 1880 at the latest. From that year on, almost all the large colony factories were powered by supplementary energy provided by a steam engine. At Colònia Borgonyà on the Ter River, founded in 1894, the steam power installed was the same as what the turbines provided, and the factory was designed so both engines would operate together. In 1904, the Cal Pons factory in Puig-reig traded in its old 150 CV steam machine for a 400-CV machine manufactured by La Maquinista Terrestre y Marítima; by 1896, two 160-CV Francis turbines were operating at the factory.

With the spread of electricity, many of the old steam machines were sold as scrap metal; generators were hooked up to the turbines and they were turned into local hydroelectric power plants. Today, with the factories in the industrial colonies now closed, many of them continue to vend electrical fluid to companies that distribute it on the grid.

In Ribes de Freser, for example, the engineer Esteve Recolons built three waterfalls on the Freser River: the Diaó and the Rialb were used to feed the factory, while the Recolons was used to generate and sell electricity. The Cooperativa de Fluido Eléctrico was founded with this purpose in mind, although it was later sold to Energía Eléctrica de Cataluña. The Brutau family of Sabadell also took advantage of the waterfalls to generate electricity between Ripoll and Sant Pau de Segúries, and the Pericàs

Boixeda family, owners of the La Coromina colony in Torelló, secured a waterfall in Sant Quirze de Besora with which they produced up to 905 CV. Of all the examples, the most important one is the Burés family, industrialists from Manresa who in addition to their factory in Castellbell i el Vilar at the foot of Montserrat built the El Pasteral waterfall in La Cellera de Ter, a vast hydraulic engineering project that enabled them to generate 1,600 CV to power its factory in Anglès, as well as to supply electricity to many towns in the province of Girona, from Anglès to La Bisbal, Palamós and Sant Feliu de Guíxols.

FROM FOUNDING TO GROWTH: A LOOK AT THE CHRONOLOGY

Based on the legislation – the laws on colonies and especially the Law on Water – and under the impetus of the industrialisation process, we can establish a chronology of the birth and growth of the industrial colonies. The first stage encompasses the period between 1858, especially 1860, and 1880. From the technical standpoint, this is the stage characterised by the spread of the second generation of steam machines that consumed vast amounts of imported coal – the Catalan coal mines were not yet exploited systematically using mining engineering techniques and injections of capital that were capable of solving the problem of large-scale transport and production. The textile industrialists, the new cotton barons, chose to take advantage of the free energy offered by Catalonia's rivers, as well as the opportunities afforded by the new turbines, many of which were already manufactured by the Girona-based company Planas, Junoy i Barné. The scanty waters of the Ter and Llobregat were offset by good facilities set up at natural waterfalls and the construction of relatively cheap hydraulic infrastructures – dams and canals – on even cheaper land. The industrialists also benefited from the 1868 Law on Water, which exempted them from paying taxes for a ten-year period. In this early stage, as the hydraulic infrastructures, factories and auxiliary buildings were being built, so were the first hubs of homes and the most indispensable services, often a shop which also served as a bakery.

Starting in 1880, and particularly after 1890, once the major workers' conflicts and claims had been resolved, the owners decided to expand the services available at their colonies, which turned into veritable nuclei of homes and services. More dwellings were built, which differed depending on the workers' place in the hierarchy. At the same time, the number of products sold in the shops expanded, and schools, churches, cafes and even casinos, not to mention theatres, were built. The second stage was lengthier: it lasted until the 1920s. With this expanded range of services, the colonies dealt with the constant and increasingly harsh claims by workers in the urban zones which also reached the colonies, albeit weakened, muffled and minimised. This is the case, for

example, of the July 1909 uprisings – the ones in the *Setmana Tràgica* (Tragic Week) – and the strikes, which were never revolutionary in the colonies but nonetheless existent and still little known, from the years of *pistolisme*⁵ immediately prior to the dictatorship of Primo de Rivera (1923-1930).

After the brief Second Republic (1931-1936) and the catastrophic Civil War (1936-1939), the Franco dictatorship ushered in a new stage which would last until 1960: this was the period of authoritarianism, repression, crisis and autarchy, the time of silence and the time when the system, protected by the dictatorship, became harsher.

MULTICAUSALITY TO EXPLAIN A COMPLEX PHENOMENON

The industrialists tried to take action to palliate the extraordinary cost entailed in the construction – despite the fact that they paid it in instalments and the labour was poorly remunerated – of a river factory and a workers' colony with its corresponding services. The example that has been studied the most is the textile industrialists who set up shop on the banks of rivers to take advantage of the water as a free energy source, as their ancestors had done in the pre-industrial era. In the mid-19th century, as the liberal state was being constructed, the procedure used to process the concessions of water used for industrial purposes was regulated by the Law on Waters, which was approved on the 3rd of August 1866 and revised in 1879. It not only allowed water to be used as a free energy source, it also exempted the business owners from paying industrial taxes for a ten-year period. However, only 17 Catalan industrial colonies among more than 80 benefited from these privileges before they were eliminated. Yet there were other favourable factors as well.

This law benefitted the textile entrepreneurs at the colonies, as well as the owners of river factories who did not have to build a colony, and all businesspeople who, regardless of their economic activity, used hydraulic energy. There were many of them. The colonies grew and developed, and they were constantly being set up on the banks of the rivers even though everyone understood and it had been demonstrated that the water from our rivers was insufficient to guarantee the pace of production that industry needed, even in the late 19th century. Just like the 1868 Law on Colonies, the 1866 Law on Waters by itself cannot explain the intense phenomenon of the industrial colonies.

On the banks of the Llobregat and Ter rivers – and their tributaries – the textile industrialists found not only free energy but also cheap labour eager to work. The workforce was less disciplined than they thought at first, but through control, paternalism, the social Catholicism from the papal encyclical *Rerum novarum*, services and years of pressure, the workers were ultimately domesticated. The proof comes from the absence of conflict

throughout the entire 20th century – except, obviously, during the years of the Civil War – even when the crisis in the textile industry was particularly severe between 1980 and 1990.

They also found cheap land, very cheap land, free of municipal ordinances and neighbours, with the potential for expansion and abundant raw materials to supply the factory and worker's complex – unmined quarries, all kinds of gravel for making cement and lime, clayey soils for making tiles and bricks, wood, etc. – along with the workforce to build it all: stonemasons, bricklayers, plasterers, lime-makers, building labourers and carpenters who came from the rural world and were all supervised, of course, by construction foremen and engineers. They also found railway systems, either under construction or already operating, which ran upriver from Barcelona to the mines in Sant Joan de les Abadesses-Ogassa and Berga-Fígols. These railway lines were the most important ones in the country and were often used to deliver coal when the rivers ran low in the winter and summer and during the intermittent droughts.

What is more, in the river valleys the businessmen found independence and broad opportunities to exercise their competences, prominence and power. The colony manufacturers were the “owners” of the colony, at the head of the municipality and the county. They were when they founded the colony, they were when the colonies grew and demonstrated their economic might, and they were especially during the long Franco dictatorship.

If the colony system had not worked, if the results had not been positive over so many years of textile colonies, they would have all died out quickly and the system would not have spread and multiplied. In addition to the expenditures inherent in any industrial activity, at the colonies this was coupled with investments in the construction and maintenance of homes and services, which included schools, nursery care, bakeries, shops, churches, cafes, theatres, cinemas, libraries, rectories, nuns' convents, teachers' homes, residences for single working women and sports facilities. It was also joined by the expense of building and maintaining infrastructures, including streets and squares, train stations and platforms, water and electricity supplies, sewer networks, waste collection and public cleaning. And of course there was also what we call today “human resources”, that is, the colony personnel: chaplains, religious communities, night watchmen and guards, teachers, cafe owners, shopkeepers and street sanitation workers, as well as transport to cover the long route between the colony and Barcelona – journeys by owners and managers, and especially to transport the cotton and manufactured goods. The industrialists at the colonies earned economic profits, social peace and a prominent role in the country's industry; the workers, thousands and thousands of anonymous people from up to four and five generations, found work, housing and services in the colony system, that is, a place to live.

COLONIES AND THE URBANISATION OF THE LAND

The world of the colonies cannot be disentwined from the process of industrialisation in Catalonia and especially the part of the country that ceased to be rural from the late 19th century until well into the 20th century, the outcome of a process in which industrialisation was impossible if homes and services, that is industrial colonies, were not built. The example of the county of Berguedà illustrates this clearly.

Baix Berguedà, or Lower Berguedà, between Cal Rosal and L'Ametlla de Merola, is the region in Catalonia where the highest density of evolved textile colonies can be found: there are 14 of them in a 20-kilometre area. This is a stretch of the river that was characterised by low demographic intensity in the mid-19th century, unlike the northern part of the county. In order to make use of the mineral and natural resources of Alt Berguedà, or Upper Berguedà, the industrialists were required to build colonies that were more or less developed depending on how much labour they needed, the availability of investment capital and the profitability of the business. In Alt Berguedà, more or less developed workers' colonies were built next to the industrial complexes where Portland cement was manufactured by the company Asland. This company was from Clot del Moro, in the township of Castellar de n'Hug, but it was so close to La Pobla de Lillet that until quite recently it was known as the La Pobla factory. In the early 19th century, the La Vall mining colony was set up to supply coal and wood in the Peguera valley (Fígols), which is at an altitude of 1,500 metres. This colony would simultaneously drive the growth of the town called Peguera. In the late 19th century, Pere Pujol i Thomàs from Berga built a lime factory and a workers' colony in Collet, within what is today the township of Guardiola, perched at the confluence of the Saldes and Llobregat rivers. During the same period, within the township of Berga but on the banks of the Llobregat near Colònia Rosal (Avià-Berga-Olvan), the Carburos Metàlicos chemical factory was built; near it, a small nucleus of homes and services sprang up which would operate as a company village.

Still, the major examples in the Alt Berguedà area the Sant Corneli, Sant Josep and La Consolació mining colonies in the township of Cercs. Built between 1880 and 1920, they are the most prominent set of mining colonies in Catalonia from the historic, architecture and urban planning standpoints. In the township of Cercs, nestled in the heart of the most important coal valley in Catalonia, the construction of colonies would last well into the 20th century. Colònia Carme was built during the 1920s on the banks of the Llobregat River near the yarn spinning factory, and after the Civil War the mining company Carbones de Berga SA built a large number of workers' homes that turned the town of Sant Salvador de la Vedella and the train station into one vast colony for the mines in Fígols.

Since the mid-19th century, the valleys on the Llobregat, Cardener, Ter and Freser rivers had experienced the industrialisation process very intensely through the textile industry, which was grounded on a longstanding manufacturing tradition. The industrialisation process was scattered about the towns of Ripoll, Manlleu, Berga and Manresa, following the course of the rivers, and it triggered another important phenomenon in which the textile colonies played a major role: urban development. To prove this, all we have to do is examine the intense occupation of the valleys in a continuous urban corridor that joins the Pyrenees and the coast to grasp that without the industrial colonies, and especially the textile colonies, the territorial imbalances in our country would be even more pronounced.⁶

ISOLATION, RAILWAYS AND MOTORWAYS

The construction of the railway was one of the most characteristic features of the process of industrialisation since the Industrial Revolution got underway in England in the mid-18th century and proceeded to spread around the entire European continent in the first half of the 19th century. In addition to the wide-rail lines, defined by the 1855 Law on Railways, secondary narrow-rail lines were built in Catalonia to fill the gaps in the main railway system and solve the direct transport problems. Nicknamed “carrilets” (“little rails” in Catalan), and official called “ferrocarriles económicos” (“economic railway lines” in Spanish), they became a key part not only of the country’s roadway and communication system but also of the processes of industrialisation, urbanisation and modernisation of Catalonia.

Solving the communication problem was – and is still in the early 21st century – the major demand by many of the economic sectors in the county of Berguedà. In the 19th century, there was utter confidence that the train and motorway would solve all the problems and lead to work, progress and welfare on the upper Llobregat River. Despite this, and even though in 1848 the Junta de Carreteres de Catalunya (Motorway Board of Catalonia) had planned to build three major railway lines that were to run through the county of Berguedà, actual construction on the lines was postponed until the early 20th century.

The Manresa motorway, which follows the course of the Llobregat, did not reach Berga until 1864, 17 years after construction on it got underway and despite the fact that it was not yet fully completed. Construction on the motorway from Berga to Montesquiú, running through Vilada and Borredà, did not get underway until 1882 and was finally finished in the 1930s. Work on the motorway from Solsona to Ribes de Freser also stretched on eternally; the stretch from Berga to the boundary of the province of Lleida, heading towards Solsona, was not finished until 1916.

The railway venture on the upper Llobregat, the railway of the industrial colonies, started in 1880 when a

Royal Order approved the project to build a tramway from Manresa to Berga designed by Marià Puig i Valls. This was a wide-rail line 100 centimetres in width.

Given the vast wealth of the Llobregat valley, no doubt was cast on the feasibility of the project according to the newspaper *El Semanario de Manresa* on the 29th of March 1881: “coal, iron, cement, wood; 160 industrial establishments including (textile) factories and flour mills, with a hydraulic force of more than 140,000 horsepower...” Calculations predicted traffic of 100 travellers and 85 tonnes of goods daily and prices of nine *peseta* cents per kilometre per journey in second class, six cents in third class and 13 cents per tonne per kilometre for cargo transport. The cost of construction soared to 550,000 *duros*.

In 1881, the state granted the company *Tranvía o Ferrocarril Económico de Manresa a Berga* the right to operate the railway line for a 60-year period. Just a month later, the shareholders met to choose the members of the administrative board: Pau Sedó, Antoni Rosal, Baltasar de Bacardí, Josep Pons, Manuel Roig, Jaume Soldevila, Marià Regordosa, Pere Badia, Victorià Feliu, Agustí Rosal, Josep Monegal and Antoni Pons. The general manager of the company was appointed, Marià Puig i Valls, who was also the author of the project. He accepted the commitment to build the railway line within two years. Construction of the train was an initiative spurred by the cotton manufacturers in the upper Llobregat, who wanted to link up their factories to the Barcelona railway line and thus optimise transport of the cotton bales from the port in the capital city. They also wanted to have a cheap, quick outlet for their manufactured goods. Not only the first administrative board but all the ones that followed it until the line was transferred to the company *Ferrocarrils Catalans* in 1919 were controlled by the large cotton industrialists in the Llobregat colonies, especially by the Pons and Rosal families. Owners of other textile colonies who were also shareholders in the railway company included the Soldevila brothers (Colònia Soldevila in Balsareny), Antoni Teixidor i Bassacs (Cal Bassacs), Josep Monegal i Nogués (L’Ametlla de Casserres), the Viladomiu brothers (Viladomiu Vell), Pau Sedó (Colònia Sedó) and a long list of riverside factory owners, including the Pons and Clerch families, partners in the company Claret, Pla i Cia. from the town of Sallent, and Marià Regordosa, the owner of a factory in Pont de Vilomara. Some of the most prominent investors and capitalists from those years also owned shares, including Baltasar de Bacardí, Manuel Farguella de Magarola and Evarist Arnús i de Ferrer, along with a small but select contingent of engineers who were familiar with this geographic area: mining engineers Lluís M. Vidal i Carreras and Victorià Felip i Vidal, engineers Alfons Flaquer i Buñil and Lluís Ribas i Casanovas, and the Puig i Valls brothers – Rafael, a forest engineer and Marià, an engineer, the author of the railway project and the person granted the right to operate the line.

The railway line designed, largely following a course parallel to the Llobregat River, linked up Manresa’s Nord

station with Colònia Rosal, and more specifically with the station that was built right in front of the colony but inside the township of Olvan. The last stretch, from Cal Rosal to Berga, posed serious technical and economic difficulties, and finally, in the midst of a huge controversy that had politicians, industrialists and public opinion in Berga at odds with each other, the train was halted at the Olvan station in Cal Rosal. In 1884, the extension of the line reached as far as Sallent, and the first journey to Puig-reig could be taken in 1885. Two years later, in 1887, the train reached Olvan station, at the doorway to Colònia Rosal.

The company Ferrocarril y Minas de Berga was founded in 1881. One year later, the Ministry of Promotion granted it the concession to build and operate the railway line. At that time, it was clear that a railway line had to be built in order to make the lignite from Alt Berguedà profitable, and construction got underway on the 10th of October 1882 in the stretch running from Cercs to Guardiola. The project was complex given the orography of the land, which was steeply sloping, and the considerable number of tunnels and bridges that had to be built led construction to falter and stop in 1890, when the companies Ferrocarril y Minas de Berga and Ferrocarril Económico de Manresa a Berga merged with the prior agreement of their leaders, Lluís G. Pons i Enrich, the owner of Colònia Pons in Puig-reig, and José Enrique de Olano y Loyzaga, who took charge of the mines on behalf of the financial group DGE De Olano in 1893.

In 1903, the train reached the base of the mines owned by José Enrique de Olano at the Fígols-Les Mines station. This station lends its name to the place and was one of the largest and most complex on the entire line, given that it connected with the system of sloped plains that ran down from Sant Corneli, Sant Josep and La Consolació. Since then, even though the place and the most important mines are located within the township of Cercs, the mining complex has been known as Fígols and the mining basin in Alt Berguedà became the most important one in Catalonia.

Thus, the train reached Alt Berguedà in 1904, long before the motorway. As happened in many other places, this prompted an extraordinary transformation in the territory. The first impact was unquestionably economic, given that the train became the preferred means of transporting cargo, mainly raw materials – cotton, coal and wood – and manufactured goods – yarns and cotton fabrics and cement. It also transported perishable foodstuffs, which considerably diversified the diet of the people living in the region. The train also ran upriver loaded with furniture, clothing, tools and machines, in addition to the first household appliances and obviously the post and newspapers. It was a train for everyone, and even though the first and second class cars might make a certain class distinction, miners, hikers, summer visitors, wild mushroom hunters and emigrants all mingled together on them. Just like everywhere else a railway network was laid down, it was ridden to go to work, to the market and fair,

to the town festival and cinema, to the natural spring or to bathe in the river, to the doctor or notary, and especially to go down to Barcelona. In 1904, the entire Llobregat from its source to the delta had become one large industrial region, a narrow industrial and communications corridor that historians have called the “backbone” of Catalonia. Regarding the Ter River, in 1880 the railway extended from Barcelona to Ripoll and Sant Joan de les Abadesses, thus boosting the industrial colonies set up along that river. However, over the course of the 20th century, vehicular traffic displaced the railroad, and the line from Manresa to Guardiola de Berguedà stopped operating in 1973.

THE OWNERS

The industrialists found independence and extensive opportunities to exercise their competences, prominence and power in the rural zones, all of this at home, among their own folks, where they were the “masters” more than they were in Barcelona, their city of residence. The founders of the oldest colonies on the Llobregat were men who still wore corduroy jackets, unquestionably wealthy men, famous men – and women – who are still known by name, including Tomàs de cal Rei from Sallent, Tomàs Viladomiu Bertran, Josep Alsina, the owner of Cal Metre, and the hard-working, entrepreneurial Raimunda Bassacs. They were people with roots in the counties of Berguedà and Bages, whose families had long been involved in manufacturing. The Rosal family, the Alsina family from Cal Metre, the Bassacs family and the Comelles del Guixaró family were from Berguedà; the Vidal, Pons, Borràs, Valls and Gomis families hailed from Bages. Some were from elsewhere. The Puig family at the mill in Broquetes, later at Colònia Sedó, had industrial experience in Vilanova i la Geltrú, the hometown of the founders of Sant Benet colony in Bages as well. The Serra Feliu family from L’Ametlla de Merola had formerly been manufacturers in Vilasar de Dalt (Maresme) and left there in the quest for cheaper energy and labour and more docile workers. Barcelona native Eusebi Güell sold the Vapor Vell de Sants (on the outskirts of Barcelona) to found the colony bearing his name, the only one powered by a steam engine; he set up this colony in around 1890 on his estate in the town of Santa Coloma de Cervelló (Baix Llobregat). José Enrique de Olano y Loyzaga, the founder of the mining colonies in Berguedà, was from Bilbao. A few colonies were even founded with foreign capital, such as the one owned by the Scottish company Coats, which founded the textile colony in Borgonyà on the Ter River in the township of Torelló in the last decade of the 19th century. Coats later came to be associated with largest thread manufacturer in Sant Andreu de Palomar (Barcelona), Ferran Fabra i Puig, the Marquis of Alella.

The industrialists who did not already live there soon set up home in Barcelon; the streets near Passeig de Grà-



Figure 4. The workers at Colònia Rosal in Berga awaiting the arrival of King Alphonse XIII. The monarch took a 15-day trip to Catalonia in October 1908. In addition to visiting Barcelona, he also travelled along the Llobregat River valley and visited some of the most important colonies (ACE Archive of Cal Rosal).

cia and the Passeig itself were their stomping grounds, and just like the other textile industrialists they opened their businesses in the area falling between Ronda Sant Pere, Trafalgar and Ausiàs Marc streets and Passeig de Sant Joan. They kept a luxurious residence, their “torre”, in the colony. These industrialists, who were one in a crowd in Barcelona, were the masters of the colonies, towns and counties. Their influence extended beyond the geographic boundaries of their colonies and spread to the towns and county seats. During the years of the restoration of the House of Bourbon’s monarchy after 1875, they actively participated in local and county politics; they served as the mayors of the county seats, provincial councillors and deputies and senators in the Spanish courts.

In Berguedà, the Pons and Rosal families and José Enrique de Olano y Loyzaga dabbled in politics and achieved levels of power that would be unthinkable today. Josep Monegal i Nogués, the owner of the colony in L’Ametlla de Monegal, was the mayor of Barcelona and founder of the Caixa de Pensions savings bank. Puig i Llagostera became one of the staunchest defenders of protectionism in Madrid. They became patrons and promoters of social aid projects in the towns where their colonies were located, and they financed the construction of schools, football pitches and hospitals for the poor. They also spearheaded the creation of major infrastructures, like the Manresa-Berga-Guardiola railway in Berguedà, and helped to found the Caixa d’Estalvis de Manresa savings bank.

One good example of the political importance of the colony manufacturers in the early 20th century is King Alphonse XIII’s visit to Catalonia in 1908. Over the course of his 15-day stay, he participated in cultural and political activities in Barcelona and visited the leading industries in Catalonia. The King also sought to reinforce his ties with the local Catalan elites through the ennoblement of numerous industrial families – including Eusebi Güell and José Enrique de Olano – with the intention of creating a local ruling elite that was closely allied with the monarchy. His visit to the two industrial rivers in Catalonia was planned with a keen interest, as it was also to be used to demonstrate the working classes’ loyalty to the Bourbon monarchy and make it clear that the old territories where the Carlist rebels had encamped in Catalonia had been abandoned and the Carlist cause and the rebellion against the constitutional monarchy forgotten, as it was regarded as overly liberal.

With the end of the restoration and the advent of the Second Republic in 1931, the owners lost their prominence and distanced themselves from the colonies, which they left in the hands of their right-hand men (managers, chaplains, stewards and teachers), a stance they would keep up during the Franco regime. Thanks to the spread of the automobile and improvements in motorways and the telephone service, their stays at the colonies were increasingly brief and limited to a few summer days in the house. Finally, many of these houses were shuttered for

long periods of time until neglect and crisis rendered them uninhabitable. Still, these industrialists never failed to attend important events at the colonies, such as the town festival, birthdays, celebrations and official openings, accompanied by the local authorities, the Civil Guard, the chaplain and, if the occasion merited it, legal administrators from the court, provincial deputies and the bishop.

THE WORKERS

There were dynasties of industrialists, and dynasties of colony workers as well because the colonies were a powerful magnet attracting labour and spurring territorial population redistribution. In the early days, the inhabitants of the colonies came from rural areas; they were fleeing the poverty of the villages, the harsh tenant farming contracts and the problems triggered by the Carlist wars, all three of which were experienced intensively in the counties of Berguedà, Ripollès and Osona, as well as in northern Bages. They were not totally unfamiliar with jobs involving machines and raw materials, but they were new to factory work.

At the start and in many colonies, factory jobs provided housing and basic services for families with three pro-

ductive members. Productive in this case means women and children starting at the age of eight or nine, in addition to men, of course. We should stop to examine this more closely: the owners preferred to employ families that could bring the highest number of workers, either immediately or in the near future. They also chose workers who often changed colonies, seeking better working or housing conditions or services, and better opportunities for every member of the family. The colony's willingness to grant a low-rent flat was conditioned upon work at the factory. Thus, at Colònia Pons, for example, only families with three members working at the factory received a flat. The workers also had the chance to rent a vegetable patch at a low price and to have their own chicken coop.

The second wave in the early 20th century mainly involved families coming from agricultural counties in crisis, such as the countryside in Tarragona, Lleida and La Franja de Ponent (the westernmost part of Catalonia touching Aragon), and even the border region between Aragon and Valencia, along with Murcia and Valencia in the 1920s and 1930s. Each colony created its own recruitment network which provided jobs for relatives, neighbours and friends from specific places around Spain, especially southern Spain but also León, Galicia and Andalusia. This dynamic continued steadily until the onset of the crisis in 1973.



Figure 5. Factory staff at Rifà in Ripoll, in 1910.

Yet not all the factory workers lived in the colony, as mentioned above. Some lived in the town and the country estates around it, from which they came to work every day on long group walks according to their shift. In order to house single women and save them long walks, the larger colonies built residences for young, single working women, usually under the care of some female religious order. These residences also housed single widows with no family in order to free up the housing for entire families.

There has been frequent mention of the docile, disciplined attitude of the “mountain” workers. Recent studies allow us to claim that this docility came through control, paternalism and catechism. There was word of violent, Luddite-style conflicts since the beginning of the 19th century in the counties where the colonies were later established. In 1824, a group of workers destroyed the machines in Miquela Laccot’s factory in Camprodon (Ripollès), and similar events took place in Sallent and Balsareny (Bages) in the mid-19th century. In 1855, the workers at the Cal Lluís Né factory in Berga declared a strike to express support for their Barcelona counterparts during the *Conflicte de les Selfactines* (from the English ‘self-acting’, referring to automatic machines that left many textile workers unemployed), and they were harshly repressed. The writer Josep Pla tells that the word *esquirol* (literally “squirrel”, used to mean scab or strike-breaker) was coined in Manlleu, when the manufacturers replaced the striking workers with others from the neighbouring towns, many of whom were from L’Esquirol, the nickname thenceforth for the town of Santa Maria de Corcó. Many manufacturers left Manlleu, heading upriver to the Ripollès, where they founded new factories and colonies, fleeing from the conflicts.

In the 1880s, this Luddite upheaval shifted to conflicts triggered by the demands for higher salaries and a shorter workday. On the Ter River, Manlleu and Roda became the strongholds of the trade union *Les Tres Classes del Vapor*, which mobilised to support the workers at Colònia Matabosc in Camprodon in 1881 when the company responded to its workers’ demands by using scabs and organising expeditions to find workers in Almeria. The main goal of the struggle of the workers in this river basin was recognition of their right to join unions – trade union members could not find work – and to organise solid mechanisms of resistance in order to deal with periods of strikes. However, this conflict was not limited solely to occasional strikes, rather it went much further: in 1888 the strike on the Ter lasted almost one year.

On the Llobregat, the conflict became radicalised to the point of becoming violent. In 1883, there were bomb attacks against executives and owners in the Berguedà colonies of Cal Rosal, Cal Metre and Cal Pons. Between 1884 and 1890, the major underlying conflict was not only a reduction in the workday but also the struggle against the imposition of night shifts. The opportunity to use hydraulic energy both day and night was too enticing for the industrialists to squander.

The 1890 strike, led by the *Les Tres Classes del Vapor* union, was particularly harsh on the Llobregat. The repression was so fierce and the consequences so important that the demands were abruptly halted with dismissals and black lists to deny jobs to around 600 workers in the county: the “pacte de la fam” (hunger pact). Some industrial colonies were surrounded by a wall separating them from the outside world, with a door that was locked at night or whenever opportune, thus justifying criticism that described the factory colonies as a form of “industrial feudalism”. The factory owner was the owner of the housing and shops. Being dismissed meant being sacked and ejected from the industrial nucleus.

It was after this conflict, triggered by the lockout of the manufacturers themselves who had accumulated stocks, that paternalistic policies began to be applied at the colonies. This policy took the guise of strict control over the workers and additional services (nursery care, schools, bar, casino, theatre, leisure zones, etc.), in addition to softer models of organising these services (mutual companies and recreational organisations, company stores, etc.), which for many years were superior to the ones provided by the impoverished town halls of the villages, the seats of the townships. The manufacturer replaced the state in its social responsibilities that would still be many years in the coming. The goal was to retain workers so that they would not emigrate to Barcelona or other towns.

This policy was particularly successful on the Llobregat, where it was painstakingly applied: managers and chaplains, teachers and nuns took charge of indoctrinating the workers, rewarding loyalty, and even promoting workers’ children so they could further their education. And there were no lack of ideologues: from the Catholic Church with the encyclical *Rerum novarum* issued by Pope Leo XIII in 1891, applied conscientiously by the bishops of Solsona and Vic, where the land was peppered with colonies, to Enric Prat de la Riba himself with his 1898 work *Ley jurídica de la empresa*.

The colony system was viewed as a sound instrument for regenerating the working class and glorifying the values of discipline, hard work, the family, tradition and religion. The colonies were not only workplaces; they were also the perfect place for education and leisure, for fostering religiosity and traditional values. The workers who did not adapt left the colony either on their own initiative or by force; with a trade under their belt they could get work at a factory in town or in the city and even try their luck on “l’altre riu” (the other river), the nickname used by the people on the Llobregat in Berguedà and northern Bages to refer to the Ter, and vice-versa by the Ter dwellers to refer to the Llobregat.

On the Ter, which had a long tradition of workers’ claims, the conflicts extended until the late 19th century with the spread of continuous yarn spinning machines which saved a great deal of labour and could be operated by untrained staff. This problem was compounded by the



Figure 6. Workers at Colònia Güell (approx. 1915). The men and boys were given different jobs than the women (courtesy of Josep Padró).

demands for higher salaries and better working hours. The 1899 strike in Osona yielded a temporary victory for the workers, but the management lockouts got underway in 1901. The previous year, manufacturers' associations had been set up with the goal of keeping the current working conditions, handling worker mobilisations, drawing up black lists of workers regarded as conflictive and bolstering the services and improving the living conditions in the colonies, as well as achieving social peace. At Colònia Sedó, Agustí Sedó undertook a number of improvements in 1903 and thus managed to avoid conflict in 1913 and 1919. At Colònia Borgonyà, the first strike was held in 1898-1899 and the second in 1927 in the midst of the Primo de Rivera dictatorship, as a result of imposing a 52-hour workweek compared to the 48-hour week until then. This strike was led by women, who made up the largest contingent of the workforce.

It should also be stressed that the workers at the colonies were not all equal. One of their main characteristics was the clear hierarchy between the elite workers, stewards, foremen and supervisors, as well as clerks and administrative staff. Training was basic in order to climb the hierarchical ladder at the factory and the colonies, and it was based on learning and studying, concepts that were only applicable to the males. The most solid, prestigious learning was the kind that took place in the locksmith's or

mechanic's shop, where the boys learned the different branches of the trade from the head locksmith – fitter, lathe operator, solderer, blacksmith and forge operator – which opened the doors to their professional ascent and access to the *muntura*⁷, and from there to the jobs of supervisor, foreman and steward. Night classes taught at the colonies themselves, linked to Barcelona's *Escola del Treball*, enabled them to attain the categories of official mechanic, installer, electrician, spinner or textile industrialist. Access to *mestria*⁸ and technical engineering required them to study at the prestigious *Escola Industrial* in Terrassa, the great school associated with the Catalan textile industry.

The history of the Puig-Riera family from Puig-reig is a fine illustration of some of the most characteristic features of these working families. They were originally tenant farmers in the river valleys in the process of industrialisation, large families, and the majority of their members worked at the factory and changed colonies until they found the one they would remain at permanently where they could improve both professionally and socially. The origins of the Puig family lie in Serrateix (Berguedà) in the early 19th century. Salvador Puig and his wife Antònia Trujols were the parents of Josep Puig Trujols, who married Antònia Conill de Viver and went to live in Castelladral (Bages) to work as a

tenant farmer. Their children were born there: Miquel (1886), Hermenegild (1889), Maria (1892) and Josep (1895), four siblings who married four of the 15 children from the Boixader Serra family, the bailiff and postman of Serrateix. Hermenegild Puig Trujols and his wife Rita Boixader Serra lived in Castelladral for a period, and then in Merola, but as the family grew to ten children they moved to Cal Pons. There, the four elder daughters – Carme (1917), Ció (1919), Maria (1920) and Lurdes (1922) – worked as spinners, and Àngel (1924) and Joaquim (1926) were foremen in the textile section. Pilar (1928) was a weaver, Josep (1931) was in charge of the preparation section, Miquel (1934) was the head of the spinning section and Jordi (1937) was a hauler.

There is information on maternal branch since the mid-1800s. Florenci Riera Solà, born in Balsareny (1868), moved to Colònia Soldevila to work as a carter, and there he married Maria Corominas Sardans (1874), a maid in the flat of the colony owner. The three children from this marriage, Maria, Peronella and Isidre (1911), learned to weave at the factory at Colònia Soldevila, where Isidre met his future wife, Maria Reguant Oliva.

The Reguant family had moved to Colònia Soldevila after having worked at two other colonies: El Fusteret on the Cardener River and Cal Riera on the Llobregat. They had trades. Francesc Reguant Gras was a spinner and his wife, Dolors Oliva Boix, a weaver. Their brother, Uncle Jacob, was a textile technician, the steward and supervisor of a textile factory in Seville. Isidre Riera Corominas, born in Colònia Soldevila in Balsareny in 1910, moved to Colònia Pons in Puig-reig with his wife, Maria Reguant Oliva; for many years he was the foreman of the looms, and his wife was a weaver. Their children, the first three of whom were born at Colònia Soldevila and the littlest one at Cal Pons, have worked at the factory for varying periods of time: Maria Dolors (1934) as a knitter; Francesc (1938) has retired as a steward of the looms at Cal Pons; Joan (1941), a technical textile engineer, moved to work in the knitwear industry in Igualada; and Maria Rosa (1947) is an administrative assistant. Josep Puig Boixadera and Maria Dolors Riera Reguant married in the church in Cal Pons; their children Ermengol (teacher), Florenci (lyric singer), Joaquim (philologist) and Francesc (librarian), have never worked at the factory. They are the heirs not only to the crisis but also to the upward social advancement of a colony family.

BUILDING A COLONY: THE CASE OF CAL PONS

Josep Pons i Enrich (Manresa, 1811-Barcelona, 1893), the descendant of a family of passementerie makers linked to the silk industry in Manresa in the 18th century, was an important cotton industrialist who also dabbled in local politics. He was a member of the most entrepreneurial generation in Manresa of his time, the generati-

on of politicians and poets, yet also the generation of great industrialists who tried to instigate a major overhaul of the Catalan industrial economy. More than one hundred years ago, in 1875, the Pons family bought the lands of Cal Garrigal (Puig-reig), which it later expanded. Their intention was to create an industrial colony. On the 20th of January 1876, the civil governor of Barcelona authorised Ignasi and Lluís G., Josep Pons' sons, to use 4,620 litres per second of water from the Llobregat and to build a waterfall 13.78 metres tall. Soon afterward, they began construction on the dam, canal, turbine room, factory and first homes; the factory was officially opened in 1880.

The shop, one of the most important services in a colony, was set up in the Cal Garrigal home, which had been totally remodelled and expanded. Today we would call it a supermarket because all sorts of foodstuffs and other goods were sold there, including meat, codfish and sardines, clothing, espadrilles, shoes, soap and cleaning products, wine and spirits, oil and anything that the people living in the colony could afford. A cafe was opened next to the shop. At the same time that the industrial buildings were being constructed, a two-metre tall wall was erected to enclose the entire premises, including the vegetable patches and irrigated fields. It had three large doorways: one to the factory, the Les Abelles doorway and one leading to the road to Cal Biel, and two smaller ones: one to the station and one to the dam.

The owners' home, a magnificent historicist building with two stories, an attic and a ground floor, also dates from this early stage, which spans from 1875 to 1880. It was built amidst gardens which would gradually become one of the most spectacular, exceptional parks that can be found in an industrial colony. The Pons family must have lived in the house somewhat continuously, given the fact that the train did not reach Puig-reig until 1885. Therefore, the industrialists, the major shareholders in the company, had to wait around ten years before they could use this modern, comfortable means of transport to travel to their colony.

Five years of intense work was supervised by the only qualified construction engineer in the entire county of Berguedà, and even though that did not stop working, he enthusiastically defended the privilege that his degree conferred on him. Still, the Pons family hired the architecture service to design the houses and the church, the most monumental buildings in the colony. They were probably also advised by a landscaper, as the layout of the grounds is not the outcome of mere improvisation. Even though it is obvious, we cannot pass up the chance to stress the importance and complexity of the construction undertaken. Let us imagine a constant string of stonemasons – the vast amount of stone that was needed to construct all those buildings came from the quarries located near the Llobregat, both inside and outside the Cal Garrigal estate – bricklayers, building labourers, plasterers, carpenters and all kinds of workers toiling at the same



Figure 7. Colònia Pons in Puig-reig in an aerial picture that shows the monumentality of some of its structures. It was built between 1875 and 1890 at the base of the Llobregat River. On the left, in the foreground, the owners' house; in the middle ground, the offices and factory, and behind them, the workers' homes; in the background, the school and church. And in front of everything, the Llobregat River, the life and soul of the colonies built along its banks (Source: Consorci del Parc Fluvial del Llobregat).

time that the locksmiths and assemblers were installing the turbine, the looms and all the spinning machinery. The construction was so vast and the investment so steep that the Pons family did not hesitate to apply for the status of agricultural and industrial colony as a way of earning the tax exemption. On the 22nd of May 1882, Ignasi and Lluís Pons Enrich won the colony concession for 15 years, a timeframe they were later able to extend by another five years in 1892.

It is interesting to look closely at the dates. In 1886, the tax exemption granted by the 1866 Law on Water came to an end. Everything was carefully planned and nothing was left to chance. A complex made up of the church – built between 1886 and 1887 – the rectory, the convent of the community of Dominican sisters of the Anunciata, the school, the single women's residence and the theatre was built above the workers' homes and the factory, at the same level as the old house. Construction on this complex finished in 1893, and Josep Pons Enrich died the same

year at the age of 82, three years before the death of his heir, Ignasi Pons, who left three sons, Josep, Antoni and Heribert Pons Arola, orphaned.

Lluís G. Pons Enrich, who had been running the family business and the colony for years, took over the reins until his death in 1921. Prior to 1893, he built the new hall, which was filled with modern mechanical looms, and the new house which was opened in 1897 and turned into the home of the Pons-Roca couple, while the nieces and nephews and sister-in-law stayed in the old house when they visited the colony. The director's home was opened in 1900. The director was a crucial figure who was in charge of guaranteeing the colony's production and control, allowing Lluís Pons to devote himself intensely to county, provincial and state politics. When his nieces and nephews legally came of age in 1909, the trade name Luis G. Pons y Enrich, *Fábrica de Hilados y de Algodón* became Luis G. Pons y Sobrinos (Luis G. Pons and Nephews).

Lluís G. Pons Enrich was unquestionably the most prominent family member because of his facet as not only an industrialist and builder but also as a politician, a vocation he inherited from his father. His endeavours worth noting as an industrialist included his participation in and decisive influence over the administrative boards of the Caixa d'Estalvis de Manresa savings bank, founded by a group that included his father, who was the first bank manager, and over the railway company *Tranvía o Ferrocarril Económico de Manresa a Berga*. His role was decisive in refloating the construction of the tramway from Cal Rosal to Guardiola de Berguedà, and from that he forged a solid alliance with José Enrique de Olano, future Count of Fígols, a mining engineer and owner of the most important coal seams in Catalonia, the Fígols mines. He never hesitated to dabble in politics as means of controlling and augmenting his business interests; he did so first as part of the Dynastic Liberal Party, for which he served as a congressional deputy in Madrid in the 1901 and 1905 legislatures. After 1919, he was a prominent member of the *Unión Monárquica Nacional*, one of the most right-leaning parties in Catalan politics at the time. Starting in 1918, the seat in Parliament for the Berga district was held by Olano y Lozaga, the first Count of Fígols.

Lluís G. Pons Enrich was an indisputably prominent presence in the economic, political and social life of Barcelona, Manresa, Bages and Berguedà in the first third of the 20th century. He was a vociferous proponent of paternalism and a promoter of charitable works: he instigated construction on the Hospital de Sant Josep in Manresa, where he funded a room to care for victims of workplace accidents, and he was a promoter and patron of the Hospital de Sant Josep in Puig-reig. While in Manresa, he liked to present himself as the benefactor of the poor. Each year he gave away sacks of rice from his property on the Ebre River where the steamship *Anita* sailed, named in honour of his wife. In Cal Pons, *Don Lluís* and *Donya Anita* excelled at applying paternalism, a practice that they kept up until their deaths in 1921.⁹

THE END OF THE COLONY SYSTEM

The economic autarchy of the Franco regime, from 1939 until the late 1950s, was a favourable period for the industrial colonies. The system began to collapse in the 1960s with the first spinning crisis and the changes being triggered by the new times. The colonies were family-owned limited liability companies which ended up being excessively burdensome as the crisis drew near, especially in the 1960s. There was no stopping the crisis, and it ended up putting an end to the colony system before the factories' activities. The overall economic and political juncture also played a key role in this. Catalonia was fully joining the consumer society and was undergoing intense political and cultural changes that also reached the colonies. A

rise in the standard of living meant a concomitant rise in consumption – on household appliances and cars – and the widespread desire to own one's own home, yet another symbol of professional success and the materialisation of the opportunities afforded by living in town and working at the colony. Better access to education, a drop in the practices and influence of religion, the generational revolt against adults, a slight liberalisation and the imitation of foreign behaviours which were visible through the television, certain texts and the effects of tourism all made the dictatorship stagger, and the safe, placid world of the colonies as well.

For the owners, the system was no longer profitable, and the majority of workers were willing to pay to throw off the yoke of dependence. Slowly but steadily, the colonies gradually emptied of people even before the definitive industrial crisis, which worsened in 1978. Before the century was over, in 1999, the last two industrial colony factories closed: the one in Borgonyà (Torelló) on the Ter River and the one in L'Ametlla de Merola (Puig-reig) on the Llobregat.

In recent years, the interest in preserving the entire heritage –urban design, architecture, history, documents, nature and intangible assets– of the colonies culminated in the approval of the Urban Development Steering Plan for the industrial colonies on the Llobregat in the counties of Berguedà and northern Bages by the *Conselleria d'Obres Públiques* (Ministry of Public Works) of the Generalitat. The plan for the colonies on the Ter is currently being developed, and the plan for the colonies in the Baix Llobregat (from Sedó to Can Gros and Colònia Güell) is still pending. The system must be articulated so that the colonies that are scattered about and slightly further from the major nuclei can be included in the steering plans that regulate them and establish them as places of residence, productive and tourist activity and preservation of historical memory. The Manifest de les Colònies (Manifesto of the Colonies), drawn up in 2005 to demand the institutions for clear regulatory action on these complexes, ended with this plea: "The colonies cannot only be considered a historic legacy; they are a reality that until now has been mute, a key element in the present and future of this country to stop the so-called territorial imbalance between rural and urban Catalonia, between the Pyrenees and the coast. We are not talking about a mere anecdote, rather more than 100 urban nuclei which have the full right to be part of the Catalonia of the 21st century."

The industrial colonies are one of the most noteworthy elements in Catalonia's industrial heritage. A rich group altogether, more than 100 of them, some have chosen to make their heritage a resource for cultural tourism, with interesting proposals for museums and interpretation centres, routes and guided tours. This is the case of L'Ametlla de Merola, Cal Pons and Cal Vidal (Puig-reig, Berguedà), of the Bellmunt del Priorat mining colony, of Colònia Borgonyà and Colònia Vila-seca

(Sant Vicenç de Torelló, Osona), of Colònia de Sant Corneli (Cercs, Berguedà), of Colònia Güell (Santa Coloma de Cervelló, Baix Llobregat), of Viladomiu Nou and Viladomiu Vell (Gironella, Berguedà), of the Ogas mining colony (Ripollès) and of Colònia Sedó (Esparreguera, Baix Llobregat).

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- [2] Àngel PANIAGUA MAZORRA. *Repercusiones socio-demogràfiques de la política de colonización durante el siglo XIX y primer tercio del XX*. Ministry of Agriculture, Fisheries and Food, Madrid 1992, "Serie Estudios", no. 3.
- [3] Jordi Clua i Mercadal has studied the issue of conflictive relations between the towns and the colonies through the examples of Viladomiu and the Gironella Town Hall (Berguedà), Colònia Salou and El Còdol Dret with the town of Les Masies de Roda (Osona), and Colònia Sedó of Esparreguera. See: *Les colònies industrials*. Els Llibres de la Frontera, Barcelona 2001, col. "Coneguem Catalunya", no. 31, p. 235-284; Àngel PANIAGUA MAZORRA, *op. cit.*
- [4] Rosa SERRA I ROTÉS, *op. cit.*, pp. 10-20.
- [5] The *pistolerisme* is the result of a series of quarrels and half of all deaths in a spiral of violence, social characteristic of the period. The constant tension between union members and anarchists who set off from 1916 were increasingly evident opposition of interests between social class and another. Attacks and killings besieging both CNT patterns, squires and senior factories. In 1920 the unions were free to speak, under the provision of the governing authority and military killed a large number of militants of the CNT.
- [6] Rosa SERRA I ROTÉS. *Les colònies del Llobregat. Industrialització i urbanització*. Generalitat de Catalunya, Department of Culture, Barcelona 2009, pp. 134-151.
- [7] The *muntura* is the popular name and generic what is known in the world of the Catalan textile industry, the job of editor of machines (looms, continuous, fulling, etc.) different from the professional mechanic as it specialist dismantling and assembling machinery.

- [8] Vocational training that gave the worker a worker in an occupational qualification.
- [9] Rosa SERRA i Ramon VILADÉS. *La colònia Pons (1875-1987)*. Àmbit de Recerques del Berguedà, Berga 1987.

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BIOGRAPHICAL NOTE

Rosa Serra (Puig-reig, 1958) has a degree in art history from the Universitat de Barcelona (UB) and a diploma in advanced studies (DEA) in Education and Heritage from the UB. She worked as a geography and history teacher at a variety of secondary schools in central Catalonia between 1982 and 1998. From 1999 to 2010, she directed the Museu de les Mines de Cercs (Mining Museum of Cercs, Barcelona) and the company Transversal Produccions Culturals. Currently she is working as a freelance in some cultural projects.

A professor in the Master's programme on Educational Museology at the Universitat de Barcelona, the Landscape Management programme at the Universitat Autònoma de Barcelona and the Education on the Landscape and Tourism programme at the CETT/UB, she is the author of books and articles on the industrial heritage (textile colonies, mills, coal mining) and on the history of her county, Berguedà.